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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/759,845      | 01/12/2001  | Pierre D. Grondin    | PGI6044P0310US      | 1863             |

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WOOD, PHILLIPS, KATZ, CLARK & MORTIMER  
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| EXAMINER |
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BEFUMO, JENNA LEIGH

|          |              |
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| ART UNIT | PAPER NUMBER |
|----------|--------------|

1771

DATE MAILED: 08/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                                       |                                       |  |
|------------------------------|---------------------------------------|---------------------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>09/759,845  | <b>Applicant(s)</b><br>GRONDIN ET AL. |  |
|                              | <b>Examiner</b><br>Jenna-Leigh Befumo | <b>Art Unit</b><br>1771               |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

(46)  
8-9-04

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 May 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 and 3-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Response to Amendment***

1. The Amendment submitted on May 18, 2004, has been entered. Claim 2 has been cancelled. Claims 1, 3 – 5, and 10 have been amended. Therefore, the pending claims are 1 and 3 – 13.
2. The 35 USC 103 rejection based on Lim et al. (5,308,691) is withdrawn since it would not have been obvious to one of ordinary skill in the art to replace the nonwoven meltblown layer taught by Lim et al. with a monolithic film layer. However, a new rejection is set forth below.

***Claim Objections***

3. Claim 10 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim, or amend the claim to place the claim in proper dependent form, or rewrite the claim in independent form. Claim 10 claims that the polypropylene have a viscosity of 3 to 12 MFR while claim 1, from which claim 10 depends recites that the polypropylene have a viscosity of 6 to 16 MFR. Thus, the range 3 to 12 is outside of the 6 to 16 range set forth in claim 1 and does not further limit the range.

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 10 – 13 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claims contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. The claim recites that the polypropylene in the nonwoven fabric have a viscosity of between 3 and 12 MFR. However, the disclosure teaches that the polypropylene has a viscosity of between 6 and 16MFR and that the polymer coating has a viscosity of between 3 and 12 MFR. Thus, the disclosure does not teach using a polypropylene with a viscosity of between 3 and 6 MFR. Claims 11 – 13 are rejected due to their dependency on claim 1.

***Claim Rejections - 35 USC § 103***

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

7. Claims 1 and 3 – 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over McAmish et al. (6,191,221) in view of Ferrar et al. (EP 0 570 215 A2).

McAmish et al. discloses a breathable film composite material comprising a monolithic film layer made from a homogeneous blend of at least two thermoplastic polymers extruded directly onto a substrate (column 2, lines 1 – 10). The film layer is a blend comprising one component which is either a polyester resin or copolyester elastomer and a second component chosen from an ethylene vinyl acetate or a ethylene methyl acrylate (column 2, lines 29 – 35). The second component is present in an amount of 10 to 80% by total weight (column 2, lines 36 – 37). The film can have a thickness ranging from 10 microns to 75 microns (column 3, lines 15 – 20). The substrate layer may be a nonwoven spunbond fabric made from polyolefin fibers

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such as polyethylene or polypropylene (column 3, lines 45 – 60). Further, McAmish et al. discloses that the basis weight of the fabric is not critical and depends on the end use of the product (column 3, lines 58 – 60).

Ferrar et al. discloses a composite comprising a liquid impermeable film layer and a supporting substrate layer. Ferrar et al. discloses that the substrate layer can be made from a spunbonded nonwoven fabric in a wide range of basis weights typically from 10 g/m<sup>2</sup> to 200 g/m<sup>2</sup> (column 1, lines 44 – 50). Also the spunbonded layer can be coated or include additives to impart particular characteristics to the fabric including flame retardancy, hydrophobicity, and anti-static properties (column 1, lines 50 – 56). One example discloses using a polypropylene spunbonded fabric which includes UV stabilizers as fabric layer in the composite material (column 4, lines 19 – 25). Thus, it would have been obvious to one of ordinary skill in the art to use the spunbonded polypropylene fabric taught by Ferrar et al. as the nonwoven substrate layer in the film/fabric composite material of McAmish et al. since McAmish et al. discloses that spunbond fabrics can be used as the fabric layer in the film/fabric composite material and Ferrar et al. discloses that the properties of the spunbond material can be modified and optimized in the composite material based on the desired end use of the product.

Further, it would have been obvious to one of ordinary skill in the art to optimize the viscosity of the polypropylene material used in the spunbond fabric, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 220 F.2d 454, 105 USPQ 233 (CCPA 1955). Also, one of ordinary skill in the art would be motivated to choose a polypropylene with a viscosity which will be processed easily on the machines so there are not a

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lot of interruptions in production due to breaks or clogs, while making sure the final product produced has the desired strength and structural integrity to provide support to the film layer. Therefore, claims 1, 3, and 4 are rejected. Claim 13 is also rejected since the limitation that the material is used as a housewrap does not add any further structural limitations to the laminate recited in claim 1.

While McAmish et al. fails to disclose the basis weight of the monolithic film coating, McAmish et al. discloses that the thickness of the film layer can vary based on the desired breatheability and durability of the film layer (column 3, lines 5 – 23). And since the thickness of the film is directly related to the basis weight of the film, it would have been obvious to one of ordinary skill in the art to optimize the basis weight of the film layer to control the breatheability and durability of the film layer as suggested by McAmish et al. Therefore, claims 6 – 9 are rejected.

Finally, although the limitations of strip tensile strength in the machine direction and the cross-machine direction are not explicitly taught by McAmish et al. or Ferrar et al., it is reasonable to presume that said limitations would be met by the combination of the two references. Support for said presumption is found in the use of similar materials (i.e. monolithic film made from a blend of acrylates and elastomers, and a polypropylene spunbonded fabric) and in the similar production steps (i.e. coating the film onto the nonwoven material) used to produce the composite material. The burden is upon the Applicant to prove otherwise. Therefore, claims 5 and 10 – 12 are rejected.

8. Claims 1 and 3 – 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ferrar et al. in view of Ray et al. (5,762,643).

The features of Ferrar et al. have been disclosed above. Ferrar et al. discloses a film/fabric composite comprising a breathable film layer and a polypropylene spunbonded fabric layer with a basis weight ranging from 10 g/m<sup>2</sup> to 200 g/m<sup>2</sup> and can also include additives which control the flame retardancy, hydrophobicity, anti-static properties, and UV stabilization properties of the nonwoven fabric. However, Ferrar et al. discloses using a microporous breathable film instead of a monolithic breathable film in the composite material.

Ray et al. is drawn to a film composite material comprising a monolithic film which is vacuum coated onto an apertured substrate (abstract). Ray et al. discloses that microporous films are expensive due to the materials needed and processing requirements needed to make the film. Also the films can be easily torn and do not produce an acceptably soft material (column 2, lines 36 – 50). Ray et al. discloses that monolithic films which are also liquid impermeable and vapor permeable, do not have the disadvantages associated with microporous films because they do not require the filler material or the extra processing steps and can be vacuum coated onto an open substrate material (column 2, lines 51 – 63). Ray et al. discloses that the monolithic film can be produced from various polymers including ethylene methyl acrylate copolymers, ethylene vinyl acetate copolymers, or copolyester thermoplastic elastomer, which contains hard segments and soft segments (column 6, lines 1 – 10). Ray et al. also discloses that in preferred embodiments the monolithic film is a blend of acrylate copolymers and one or more thermoplastic elastomers to improve the draw down and extrudability of the thermoplastic elastomer (column 6, lines 43 – 53). The film can also include useful additives such as lubricants, anti-blocking agents, surfactants, and the like (column 7, lines 6 – 9).

Therefore, it would have been obvious to one of ordinary skill in the art to vacuum coat the monolithic film taught by Ray et al. onto the fabric material taught by Ferrar et al. since Ray et al. discloses that the monolithic film is cheaper and is softer than the microporous films and less likely to tear. Additionally, as set forth above, it would have been obvious to one of ordinary skill in the art to optimize the viscosity of the polypropylene material used in the spunbond fabric to control the processing efficiency of the spunbond fabric while optimizing the strength and structural integrity of the final product. Thus, claims 1, 3, and 4 are rejected. Claim 13 is also rejected since the limitation that the material is used as a housewrap does not add any further structural limitations to the laminate recited in claim 1.

While Ray et al. fails to disclose the basis weight of the monolithic film coating, Ray et al. discloses that the thickness of the film layer can range between 0.10 to 1.0 mils (column 7, lines 14 – 16). And since the thickness of the film is directly related to the basis weight of the film, it would have been obvious to one of ordinary skill in the art to optimize the basis weight of the film layer by changing the thickness of the film layer. Further, controlling the thickness of the film layer would optimize the breatheability and durability of the film layer. Therefore, claims 6 – 9 are rejected.

Finally, although the limitations of strip tensile strength in the machine direction and the cross-machine direction are not explicitly taught by Ferrar et al. or Ray et al., it is reasonable to presume that said limitations would be met by the combination of the two references. Support for said presumption is found in the use of similar materials (i.e. monolithic film made from a blend of acrylates and elastomers, and a polypropylene spunbonded fabric) and in the similar production steps (i.e. coating the film onto the nonwoven material) used to produce the



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composite material. The burden is upon the Applicant to prove otherwise. Therefore, claims 5 and 10 – 12 are rejected.

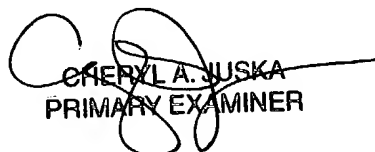
***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jenna-Leigh Befumo whose telephone number is (571) 272-1472. The examiner can normally be reached on Monday - Friday (8:00 - 5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jenna-Leigh Befumo  
August 5, 2004



CHERYL A. JUSKA  
PRIMARY EXAMINER